

**MQ325B — FERTILIZERS AND RELATED CHEMICALS
(SULFURIC ACID, NITRIC ACID, PHOSPHORIC ACID, ETC.)
(SHIPMENTS AND PRODUCTION)**

DEFINITIONS AND SPECIAL INSTRUCTIONS

1. Scope of survey

This survey covers all manufacturers of inorganic fertilizer chemicals, phosphatic fertilizer materials and sulfuric acid in the United States, except manufacturers of spent sulfuric acid recovered by hydrolysis and evaporation.

2. Data to be reported

Companies with more than one establishment manufacturing the products covered by this survey are requested to complete a separate form for each location. If you have not received a separate report form for each of your establishments, please call the contact listed on the front of the report form or write to the U.S. Census Bureau for additional forms.

a. Production

Report total quantity produced of each specified product, whether sold, transferred, added to inventory, or used in further processing. Unless otherwise specified, when two or more physical forms of a specific chemical are listed, report production for each form, including quantities which are subsequently used in producing other physical modifications of the chemical. Include products made elsewhere for this establishment on a contract basis from materials supplied by you. But exclude quantities produced under toll agreement (where raw materials are furnished to you by another firm and the finished product is returned to that firm).

Sulfuric acid, gross production — Report the quantities produced from all sources and available for use or for sale, except for the amounts recovered by processes other than by decomposition or fortification.

Production of sulfuric acid should *include* —

Amounts produced from the oxidation of sulfur or sulfur-bearing materials.

Quantities of acid produced from the decomposition of sludge, alkylation acid, and other spent acids.

Quantities of acid produced by the fortification of spent acid.

but *exclude* —

Amounts of sulfuric acid recovered by hydrolysis and evaporation (concentration).

Intermediate production where sulfuric acid is not withdrawn from the system.

Sulfuric acid produced from decomposition — Report the quantity of sulfuric acid produced from the decomposition of alkylation acid and other spent acids, including sulfuric acid sludge, to SO_2 .

This data should *include* —

Sulfuric acid decomposed from spent acids from your own operation.

Sulfuric acid decomposed from spent acids received from outside sources.

but *exclude* —

Spent acid recovered by hydrolysis and evaporation

b. Quantity and value of shipments

Report physical shipments of all products sold, transferred to other establishments within your company, or shipped on consignment, whether for domestic or export sale. Value represents the net sales price, f.o.b. plant, to the customer or branch to which the products are shipped, net of discounts, allowances, freight charges, and returns. Shipments to your own branches should be assigned the same value as comparable sales to unaffiliated customers, i.e., the value includes an appropriate allocation of company overhead and profit. Products bought and resold without further manufacture or packaging should not be included in shipments.

c. Consumption

Report the total quantity of all specified chemicals produced in the reporting establishment and used in further processing within this establishment. (Production of these chemicals should be included in column 1.) Exclude products purchased or received from other plants of your company and consumed.

d. Units of measure

Report all quantities in equivalent short tons of the basis specified. For example, if you produced 100 tons gross weight of a solid monoammonium phosphate with a 45% P_2O_5 content, you would report 100 short tons gross weight and 45 short tons 100% P_2O_5 content. If it is not possible to report in terms of the basis and unit of measure requested, please indicate precisely the basis and unit of measure which actually apply to the reported figures.

e. Columnar structure of the report

When posting your data to the original report, please be sure to report the information in the correct columns:

Column 1 — Production
 Column 2 — Quantity of shipments
 Column 3 — Value of shipments
 Column 4 — Consumption
 Column 5 — Stocks

f. Stocks

Report total stocks on hand at the producing plant at the end of the quarter. Stocks held at producing plants should be reported separately for each plant. In addition, a separate report should be filed for stocks of these chemicals held at locations other than producing plants. Stocks of phosphatic fertilizer materials should include both cured and uncured materials.

3. Definitions

The product detail for this survey, as shown in the Reference List is defined according to standard nomenclature for this industry.

Sulfuric acid — Represents quantities produced from all sources which are available for sale except for the amounts recovered by processes other than decomposition or fortification. Includes amounts produced from the oxidation of sulfur or sulfur bearing material and from the decomposition of spent acids. Excludes sulfuric acid recovered by hydrolysis and evaporation and intermediate production where sulfuric acid is not withdrawn from the system.

Sulfuric acid produced from decomposition (item code 3010) — Include acid produced from the decomposition of alkylation and other spent acids, including sulfuric acid sludge, to SO₂.

Spent acid used in fortification (item code 3711) — Include spent acid used only to manufacture fortified acid.

Normal and enriched superphosphates (item code 1149) — Include all grades containing less than 40 percent available phosphoric oxide (P₂O₅).

Concentrated (triple) superphosphates (item code 1409) — Include grades containing 40 percent or more phosphoric oxide (P₂O₅).

Monoammonium phosphates (item code 1434) — Include chemically processed nitrogen-phosphorus materials containing 50 percent or more primary nutrients and having a phosphate to nitrogen ratio of 3 to 1 or greater.

Diammonium phosphates (item code 1465) — Include chemically processed nitrogen-phosphorus materials comprising fertilizer grades containing 18 to 21 percent nitrogen (N), and 46 to 54 percent phosphoric oxide (P₂O₅).

Other ammonium phosphates and other phosphatic fertilizer materials (item code 1574) — Chemically processed nitrogen phosphorus materials solid and fluid, including mixtures of monoammonium, diammonium, and ammonium sulfate. Also included are ammonium phosphate-potash mixtures nitrophosphates, calcium metaphosphates, sodium phosphates, wet base goods (made by treating phosphate rock and some organic nitrogenous material with sulfuric acid), etc. *Exclude* feed-grade calcium phosphates.

4. Comparability

Data reported in this survey should correspond to data reported in the Economic Census - Manufacturing Sector form. The sum of values for item codes shown in column (a) should correspond to the dollar values reported under product codes indicated in column (b) below:

Current Industrial Reports (Form MQ325B) Item codes (a)	Economic Census - Manufacturing Sector Product codes (b)
5301, 6111, 6121, 6241, 6251, 6261, 6281, 6291, 6321, 6341, 7011, 7021	3253111 100
7161, 7171, 7181, 7191	3253114 100
1149, 1409, 1434, 1465, 1574	3253124 100
5401 and 5441	3253121 100
3100 and 3300	3251881 100

REFERENCE LIST

FORM MQ325B FERTILIZER MATERIALS AND RELATED PRODUCTS (SULFURIC ACID, NITRIC ACID, PHOSPHORIC ACID, ETC.)			
Product code	Item code	Item description	Basis (Report in short tons)
3253124111	1148	Normal and enriched superphosphates (less than 40% P₂O₅)	Gross weight
	1149	Production Stocks on hand, end of quarter	100% P ₂ O ₅ content Gross weight
3253124121	1408	Concentrated superphosphates (triple) (over 40% P₂O₅)	Gross weight
	1409	Production Stocks on hand, end of quarter	100% P ₂ O ₅ content Gross weight
3253124131	1432	Monoammonium phosphates solid grade (11-48-0; 10-50-0; 11-52-0; 11-54-0; 11-55-0; 12-60-0 and similar grades, excluding sulfur)	Gross weight
	1433	Nitrogen	100% N content
	1434	Production Stocks on hand, end of quarter	100% P ₂ O ₅ content Gross weight
3253124211	1461	Diammonium phosphates, solid grade (16-48-0; 18-46-0; 21-53-0)	Gross weight
	1463	Nitrogen	100% N content
	1465	Production Stocks on hand, end of quarter	100% P ₂ O ₅ content Gross weight
3253124222	1572	Other ammonium phosphates, ammonium phosphate sulfates and other phosphatic fertilizer materials (13-39-0, 16-20-0)	Gross weight
	1573	Nitrogen	100% N content
	1574	Production Stocks on hand, end of quarter	100% P ₂ O ₅ content Gross weight
3251881100	3000	Sulfuric acid, total production	100% H ₂ SO ₄
		By feedstock:	
3251881111	3004	Elemental sulfur	100% H ₂ SO ₄
3251881121	3008	Smelting metallic sulfide ore	100% H ₂ SO ₄
3251881131	3010	Decomposition of alkylation and other spent acid	100% H ₂ SO ₄
3251881141	3020	Other	100% H ₂ SO ₄
		By grade:	
3251881212	3100	Oleum grades	100% H ₂ SO ₄
3251881231	3300	Other than oleum grades	100% H ₂ SO ₄
3251881311	3711	Spent acid used in fortification	100% H ₂ SO ₄
3251881321	3910	New acid and fortified spent acid, stocks	100% H ₂ SO ₄
3251881331	3915	Alkylation acid and other spent acids, including sulfuric acid sludge for decomposition, stocks	100% H ₂ SO ₄
3251881341	3920	Spent acid for fortification, stocks	100% H ₂ SO ₄

REFERENCE LIST — Continued

FORM MQ325B				
Product code	Item code		Item description	Basis (Report in short tons)
3253111111	5301	Production	ACIDS Nitric acid (Report total production of the HNO_3 content of the original solution produced by oxidizing ammonia, including that produced as an intermediate product)	100% HNO_3
3253121111	5401	Production Stocks	Phosphoric acid — In addition to production and stocks, report shipments on: Thermal, total	100% P_2O_5 100% P_2O_5
3253121121	5441	Production Stocks	Wet, total filter acid basis (Report total production of the P_2O_5 content of the original solution at the filter produced by acidulating phosphate rock, including that produced as an intermediate product)	100% P_2O_5 100% P_2O_5
3253121211	5461	Production Stocks	By use: Fertilizer	100% P_2O_5 100% P_2O_5
3253121221	5471	Production Stocks	Animal feed (e.g., defluorinated and industrial) (e.g., refined/technical)	100% P_2O_5 100% P_2O_5
3253121311	5481	Production Stocks	By grade: Ortho (less than 65% P_2O_5) (includes merchant grade and all others)	100% P_2O_5 100% P_2O_5
3253121321	5491	Production Stocks	Super (more than 65% P_2O_5)	100% P_2O_5 100% P_2O_5
3253111120	6101	Production Stocks	OTHER CHEMICALS Ammonia, synthetic, anhydrous (Report total production of ammonia whether used or shipped as anhydrous or converted to aqua. This figure should represent total ammonia leaving compressors and not calculated from the NH_3 content of finished products.)	100% NH_3 100% NH_3
3253111121	6111	Production Stocks	Fertilizer use	100% NH_3 100% NH_3
3253111131	6121	Production Stocks	Other uses	100% NH_3 100% NH_3

REFERENCE LIST — Continued

FORM MQ325B				
Product code	Item code		Item description	Basis (Report in short tons)
			OTHER CHEMICALS — Continued	
3253111201	6201	Production Stocks	Ammonium nitrate Original melt liquor (Report total production of the ammonium nitrate content of original melt liquor chemically synthesized from ammonia and nitric acid, including that produced as an intermediate product. Quantities for item codes 6241, 6261, 6281, and 6291 should also be included in this code.	100% NH_4NO_3 100% NH_4NO_3
3253111211	6241	Production Stocks	Of total production, how much was: Consumed in the manufacture of other nitrogen solutions (e.g., CAN17, AN20, AAN)	100% NH_4NO_3 100% NH_4NO_3
3253111216	6251	Production Stocks	Liquor consumed in the manufacture of urea-ammonium nitrate solutions	100% NH_4NO_3 100% NH_4NO_3
3253111221	6261	Production Stocks	High density prill and granular	100% NH_4NO_3 100% NH_4NO_3
3253111226	6281	Production Stocks	Low density prill and grained	100% NH_4NO_3 100% NH_4NO_3
3253111231	6291	Production Stocks	All other (e.g., liquor sales, production loss, other)	100% NH_4NO_3 100% NH_4NO_3
3253111240	6301	Production Stocks	Ammonium sulfate (synthetic and byproduct, other than coke oven), total	100% $(\text{NH}_4)_2\text{SO}_4$ 100% $(\text{NH}_4)_2\text{SO}_4$
3253111241	6321	Production Stocks	Synthetic (direct synthesis from sulfuric acid and ammonia)	100% $(\text{NH}_4)_2\text{SO}_4$ 100% $(\text{NH}_4)_2\text{SO}_4$
3253111246	6341	Production Stocks	Byproduct, other than coke oven	100% $(\text{NH}_4)_2\text{SO}_4$ 100% $(\text{NH}_4)_2\text{SO}_4$
3253111256	7021	Production Stocks	Nitrogen solutions, including mixtures UAN solutions (ammonium nitrate/urea solutions)	100% N 100% N
3253111251	7011	Production Stocks	All other solutions (e.g., CAN17, AN20, AAN, other) and solutions containing free ammonia (include data for solutions containing two or more products such as (a) ammonia, ammonium nitrate; (b) ammonia, urea; (c) ammonia, ammonium nitrate, urea)	100% N 100% N

REFERENCE LIST — Continued

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Product code	Item code		Item description	Basis (Report in short tons)
3253114101	7151	Production Stocks	OTHER CHEMICALS - Continued Urea original melt liquor (Report total production of urea content of original melt liquor synthesized from ammonia and carbon dioxide, including that produced as an intermediate product.	100% NH ₄ NO ₃ 100% NH ₄ NO ₃
3253114111	7161	Production Stocks	Of total production, how much was: Consumed in the manufacture of urea-ammonium nitrate solutions	100% Urea 100% Urea
3253114121	7171	Production Stocks	Prills	100% Urea 100% Urea
3253114131	7181	Production Stocks	Granular	100% Urea 100% Urea
3253114141	7191	Production Stocks	All other (liquor sales, melmine, feedstock, other	100% Urea 100% Urea

NOTES: